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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/516,773	12/03/2004	Hirokazu Watanabe	500615.20255	4561
26418	7590	11/16/2007		
REED SMITH, LLP ATTN: PATENT RECORDS DEPARTMENT 599 LEXINGTON AVENUE, 29TH FLOOR NEW YORK, NY 10022-7650			EXAMINER BAHTA, KIDEST	
			ART UNIT 2125	PAPER NUMBER
			MAIL DATE 11/16/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/516,773

Applicant(s)

WATANABE ET AL.

Examiner

Kidest Bahta

Art Unit

2125

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                           |                                                                                        |
|-----------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                               | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                      | 5) <input type="checkbox"/> Notice of Informal Patent Application                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____                                                |

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 are rejected under 35 U.S.C. 102 (b) as being anticipated by Matsuda et al. (US 5,321,619).

Regarding claim 1, Matsuda discloses an input means for inputting design conditions and the importance of each of said design conditions, said design conditions being a manufacturing line's design that is comprised of an environment of work area and transfer paths connected among said work area (column 6, lines 23-55, Fig. 1, Fig. 37); a calculation means from which candidates of an appropriate manufacturing line are outputted by being calculated from said design conditions and said importance (Fig. 10-Fig. 20); a simulation means which simulates said some candidate of said manufacturing line respectively (column 45, lines 26-45); and an output means which generates and outputs a program or programs of an optimized manufacturing line (column 9, line 65-column 7, line 7).

Regarding claim 2, Matsuda discloses the design conditions include: required working steps for said manufacturing line (Abstract, column 45, lines 45-56); working time of each of said required working steps (column 8, line 65-column 9, line 7); outputted products of said line (column 6, line 56-column 7, line 7); working space

available in said work area (Fig. 3); transfer paths connected among said working area; and investment value (Fig. 39, column 44, lines 34-48).

Regarding claim 3, Matsuda discloses the simulation means simulates a transfer duration among said working area and usage rates of said working space (column 45, lines 26-45).

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuda et al. (US 5,321,619) in view of Haba, Jr. et al. (US 4,894,908).

Regarding claim 4, Matsuda discloses the limitations of claim 1 and inputting at least one system design requirement of a manufacturing line design from a group consisting of working time of each process, an operating rate, plant cost or equipment cost (Fig. 3); outputting potential candidates of an optimum manufacturing line (column 42, lines 45-59); performing performance simulations on said outputted candidates (column 45, lines 26-45); and displaying a resultant construction design of the optimum manufacturing line (column 43, lines 30-38; Fig. 44), but fails to disclose inputting and applying a weighting factor of importance to said design requirements.

However, Haba discloses inputting and applying a weighting factor of importance to said design requirements (column 4, lines 7-11).

Regarding claim 5, Matsuda discloses a job type control system to control the specific function performed on the automated guided pallets when the automated guided pallets are placed at a job site in the work area (Fig. 8, Figs., 23, 24, 26, 28, 32); a system controller which harmonizes the functions of the flow type control system and the a job type control system so that the two systems wok together at the same time in the work area to optimize output (column 42, lines 45-59).

Matsuda fails to disclose work area for automated guided pallets (AGP); automated guided pallets; a flow type control system to guide the automated guided pallets around the work area.

Haba discloses disclose work area for automated guided pallets (AGP) (column 6, lines 9-40, AGV); automated guided pallets (column 8, lines 22-46); a flow type control system to guide the automated guided pallets around the work area (column 8, lines 49-60).

It would have been obvious to a person of ordinary skill in the art at the time of invention was made to modify the teachings of Matsuda with the teachings of Haba in order to provide a production control system in which entries of control data and changes in control data required for controlling automated working units are made easier and simpler in a production line constituted with a plurality of such APUs so that idle time is reduced which is taken while information is being read at each APU, thereby improving productivity.

### **Conclusion**

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3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed Kidest Bahta whose telephone number is 571-272-3737.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard can be reached on 571-272-3749. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application information Retrieval IPAIRI system. Status information for published applications may be obtained from either Private PMR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAG system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kidest Bahta



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PRIMARY EXAMINER  
TECHNOLOGY CENTER 2